

Title (en)
SILICON CONTROLLED RECTIFIER

Title (de)
SILICIUMGESTEUERTER GLEICHRICHTER

Title (fr)
REDRESSEUR COMMANDÉ AU SILICIUM

Publication
EP 3116026 A1 20170111 (EN)

Application
EP 15175743 A 20150707

Priority
EP 15175743 A 20150707

Abstract (en)
A silicon controlled rectifier, an electrostatic discharge (ESD) protection circuit including the silicon controlled rectifier and an integrated circuit including the silicon controlled rectifier or ESD protection circuit. The silicon controlled rectifier includes a first region having a first conductivity type and a second region having a second conductivity type located adjacent the first region in a semiconductor substrate. A junction is formed at a boundary between the first region and the second region. Contact regions of the first conductivity type and the second conductivity type located in each of the first region and the second region. A further contact region of the second conductivity type is located in the second region, in between the contact region of the first conductivity type and the junction. The further contact region and the contact region of the second conductivity type in the second region are connected together for biasing the second region.

IPC 8 full level
H01L 29/74 (2006.01); **H01L 27/02** (2006.01)

CPC (source: EP US)
H01L 27/0262 (2013.01 - EP US); **H01L 27/0285** (2013.01 - US); **H01L 27/0292** (2013.01 - EP US); **H01L 29/7436** (2013.01 - EP US)

Citation (search report)
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CN113675832A; CN110932249A; US10978444B2

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)
BA ME

DOCDB simple family (publication)
EP 3116026 A1 20170111; **EP 3116026 B1 20210217**; US 2017012037 A1 20170112; US 9704851 B2 20170711

DOCDB simple family (application)
EP 15175743 A 20150707; US 201615179162 A 20160610